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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/009,573  | 12/12/2001  | Herve Sainct         | Q 67618             | 9696             |
| 7590  | 01/26/2005  |                      | EXAMINER            |                  |
| Sughrue Mion Zinn Macpeak & Seas<br>2100 Pennsylvania Avenue N W Suite 800<br>Washington, DC 20037-3213 |             |                      | SHARMA, SUJATHA R   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2684                |                  |

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,573

Applicant(s)

SAINCT, HERVE

Examiner

Sujatha Sharma

Art Unit

2684

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply****A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 27 September 2004.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 2-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 2-7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] in view of Cesaro [US 3,742,358].

Regarding claim 7, Baum discloses an air-borne platform that carries a communication payload. Baum further discloses a method where the aircraft includes propulsion means (see element 15 in fig. 2) enabling said aircraft to maintain itself, to move itself and to orient itself solely at high altitude (see page 6, line 23 – page 7, line 3, page 11, lines 21-28). Baum further discloses transceiver means for radio waves (see page 3, lines 1-15). Further Baum discloses a method wherein the said aircraft is being taken to an altitude and a position such that the said transceiver means lies in the same direction relative to atleast one user of said telecommunication network (see page 3, lines 22-29, page 4, line 5 – page 5, line 20).

Baum, however, does not explicitly disclose that the radio relay on the ground is replaced by said aircraft.

Cesaro, in the same field of endeavor, teaches a method where a ground based radio relay system can be replaced by means of airborne apparatus in order to reduce radiation from ground based towers or masts.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to use airborne apparatus as taught by Cesaro in Baum's invention in order to replace the ground based radio relay system by the airborne apparatus thus reducing radiation from ground based towers or masts.

Regarding claim 5, Baum further discloses a method of getting an aircraft onto station, the method being characterized by the following steps:

- on the ground, said aircraft (50 in Fig. 8) is secured to an independent transporter (51 in Fig.8)
- said transporter (51 in Fig. 8) takes said aircraft to a high altitude (position D in Fig. 8) at which it is to operate using solely propulsion means of said transporter (see page 13, lines 8 – 27)
- said transporter releases said aircraft at the altitude and atleast approximately at the intended location of its operating station (see fig. 8 and page 13, lines 8-27)
- if necessary, said aircraft uses its own propulsion means (15 in Fig. 2) to put itself on station and take up its proper orientation (see page 6, line 23 – page 7, line 3, page 11, lines 21-28)

Regarding claim 6, Baum further discloses a method where the transporter further comprises of atleast one balloon (51,57 in Fig. 8) suitable for rising to high altitude

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] and Cesaro [US 3,742,358] in view of Wong [WO 97/33790].

Regarding claim 2, Baum and Cesaro disclose all the limitations. However they fail to disclose a method wherein the propulsion means comprising atleast one plasma thruster which operates using plasma created from the surrounding air at said high altitude.

Wong, in the same field of endeavor, teaches a method of using a new propulsion system to overcome the inefficiencies of the conventional propellers. Further Wong teaches a method where the engine includes an electrode and the emitted electrons are accelerated by the surrounding electric field forming plasma of electrons, which is then used to propel the aircraft. See page 16, line 7 – page 17, line 15.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Wong to Baum and Cesaro in order to use a more efficient method of propulsion.

Regarding claim 3, Wong further teaches the use of solar generator in the aircraft which is cooled by convection (dissipating or radiating heat to the surrounding area. See page 22, lines 17-27 where it indicates that heat is discharged to the surrounding gas)

Regarding claim 4, Wong further teaches the use of atleast one storage battery in the aircraft. See page 15, lines 17-26.

***Response to Arguments***

2. Applicant's arguments with respect to claims 2-7 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sagey [US 4,740,792]      Vehicle location system

MacCready [US 6,550,717]    Liquid hydrogen stratospheric aircraft

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 703-305-5298. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sujatha Sharma  
January 13, 2005

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER